NON-PUBLIC?: N
ACCESSION #: 8803160349

LICENSEE EVENT REPORT (LER)

FACILITY NAME: Millstone Nuclear Power Station Unit 3 PAGE: 1 of 3

DOCKET NUMBER: 05000423

TITLE: Reactor Trip and Feedwater Isolation Due to Steam Generator Level Transient
EVENT DATE: 02/10/88 LER #: 88-009-00 REPORT DATE: 03/08/88

OPERATING MODE: 1 POWER LEVEL: 020

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR SECTION
50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:
NAME: Barry M. Pinkowitz, Engineer TELEPHONE #: 203-447-1791 Ext. 5515

SUPPLEMENTAL REPORT EXPECTED: No

ABSTRACT: On February 10, 1988, 0907 with the plant at 20% power, 586 degrees, and 2250 psia (Mode 1), an automatic reactor trip occurred due to a feedwater transient. At the time of the event, the plant was reducing power to perform turbine overspeed testing. Feed control was being transferred from the Main Feed Regulating Valves to the Feed Bypass Valves. The operator experienced difficulty controlling steam generator level leading to a Feedwater Isolation due to high level in D steam generator. The Feedwater Isolation signal acted to isolate feed from the steam generators. Prior to completing recovery action, a reactor trip was received due to low-low level in steam B generator. The immediate cause of the event was the inability of the assigned operator to control feedwater to all steam generators simultaneously. The root cause of the event was insufficient job planning on the part of shift supervision. As action to prevent recurrence, a procedure change has been approved requiring a dedicated operator at the Feed Station Area of the Main Control Boards whenever feedwater control is being switched from the Main Feedwater Valves to the Bypass Valves.

(End of Abstract)

I. Description of Event

On February 10, 1988, at 0907 with the plant at 20% power, 586 degrees, and 2250 psia (Mode 1), an automatic reactor trip occurred due to a feedwater transient. At the time of the event, the plant was reducing power to perform turbine overspeed testing. Feedwater control was being transferred from the Main Feed Regulating Valves to the Feed Bypass Valves. The Main Feedwater Regulating valves were in manual and closed, the Feedwater Bypass valves were in manual and controlling level in the steam generators (along with the contribution from Feed Regulating Valve leakage), and the Feedwater pump was in manual. The operator experienced difficulty controlling steam generator level leading to a Feedwater Isolation due to high level in D steam generator. The Feedwater Isolation signal acted to isolate feedwater to all steam generators and the high water level signal caused a protective trip of the Main Turbine in accordance with design. Prior to completing recovery action, a reactor trip was received due to low-low level in B steam generator. All control rods were observed to properly bottom. Auxiliary Feedwater pumps started due to the low-low Steam Generator level signal.

The immediate cause of the event was the inability of the assigned operator to control feedwater to all steam generators simultaneously. Emerging level oscillations in B steam generator resulted in the operator focusing his attention in that direction. Level in D steam generator started to drop. The operator responded to the decreasing level in D steam generator by opening the Feed Regulating

Bypass Valve excessively. The overfeeding of D steam generator resulted in a Feedwater Isolation. The isolation of feedwater to all steam generators resulted in the subsequent low-low level reactor trip due to B steam generator level.

II. Cause of Event

The root cause of the event was insufficient job planning on the part of shift supervision. The transition between Main and Bypass feed regulating valves has been recognized as a sensitive plant condition requiring additional licensed operators at the Main Control Board. Additional help was not made available to the operator until the transient was too advanced to turn.

III. Analysis of Event

This event is reportable pursuant to 10CFR50.73(a)(2)(iv), any event or condition that resulted in the automatic actuation of any Engineered Safety Feature including the Reactor Protection System. Immediate notification was performed at 0938 pursuant to 10CFR50.72(b)(2)(ii).

There was no affect to the health and safety of the public as the plant remained within its design conditions throughout the event.

IV. Corrective Action

As action to prevent recurrence, a procedure change has been implemented requiring a dedicated operator at the Feedwater Control Station Area of the Main Control Boards whenever feedwater control is being switched from the Main Feedwater Regulating Valves to the Bypasses. The normal operator will be available to render assistance if required. The Shift Supervisor's responsibility to complete sufficient job planning has been reinforced with the Operations Department Staff.

V. Additional Information

There have been no previous events with the same root cause. Feedwater Isolations related to inability to control steam generator levels were reported in LER's 86-018, 86-028, 86-041, 86-049, 87-021 and 87-037. These events do not include instances of mechanical or electrical failure.

EIIS CODES

Systems

Main Feedwater System - SJ
Steam Generator Level Control - JB

Components

Flow Control Valve - FCV

NORTHEAST UTILITIES General Offices . Selden Street, Berlin, Connecticut
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Holyoke Water Power Company Hartford, Connecticut 06141-0270
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Northeast Nuclear Energy Company

March 8, 1988
MP-11604

Re: 10CFR50.73(a)(2)(iv)

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D. C. 20555

Reference: Facility Operating License No. NPF-49
Docket No. 50-423
Licensee Event Report 88-009-00

Gentlemen:

This letter forwards Licensee Event Report 88-009-00 required to be submitted within thirty days pursuant to 10CFR50.73(a)(2)(iv), any event or condition that resulted in the automatic actuation of any Engineered Safety Feature including the Reactor Protection System.

Yours truly,
NORTHEAST NUCLEAR ENERGY COMPANY
/s/ Stephen E. Scace
Stephen E. Scace
Station Superintendent
Millstone Nuclear Power Station

SES/RMP:mo
Attachment: LER 88-009-00
cc: W. T. Russell, Region I
W. J. Raymond, Senior Resident Inspector

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